

**APPLICATION FOR UNITED STATES
LETTERS PATENT**

of

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for

FOOD SCOOP AND SERVING CONTAINER

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Field of the Invention

The present invention relates to a food scoop and serving container and more particularly to a two-piece frusto-conic scoop and serving container for the sale of measured portions of french fried potatoes and the like.

BACKGROUND FOR THE INVENTION

Collapsible french fry scoops and serving containers which must be assembled from a collapsible position into an open position are widely used in the fast food industry. In such scoops and serving containers, a scooped out center portion of a side wall blank forms the lower most edge portion of the mouth of the scoop or scuttle configuration. Such scoops or containers are not generally capable of standing upright.

Two-piece frusto-conic scoop and serving containers are also known. For example, the U.S. Patent of Herbst et al., 4,252,264 discloses a two-piece scoop and serving container with internal and external core and method for applying such decor. As disclosed therein, a two-piece frusto-conic container is provided with a scalloped side wall having a lower most depressed edge portion opposite to an upper most edge portion in a scoop configuration. When filled with food, the container will stand alone. A lapped side seam extends from the base of the upper most edge portion to lend stiffness to the scoop configuration.

In the current fast food market, many fast food purveyors are using "fry cups" to serve french fried potatoes and the like. Such containers are becoming more popular since the fry cups can be set on a table without falling over or spilling food and can be carried while walking or driving a motor vehicle and have sufficient stiffness so that the food is not inadvertently ejected from a container due to squeezing. Further, such containers reduce the likelihood of spilling an amount of food if an individual stumbles while walking.

It is presently believed that there will be a significant commercial demand for an improved two-piece food scoop and serving container in accordance with the present invention. There should be a significant demand because such containers offer all of the advantages of the prior art two-piece food scoops and serving containers and offer additional advantages. For example, the food scoops and serving containers in accordance with the

present invention are stiffer and stronger than those presently in the market, but use thinner carton blanks. Accordingly, the containers use less paper, produce less scrap during the manufacturing process, are lighter, stiffer and more durable.

BRIEF SUMMARY OF THE INVENTION

In essence, the present invention contemplates a food scoop and serving container for french fries, onion rings, popcorn, shrimp and other finger foods which are served in small cellulose or paper board containers. The food scoop and food containers include an upwardly tapered frusto-conic portion of a stiff but resilient cellulosic material such as a paper board and has a generally circumferential grain direction. The food scoop and container also include a base or bottom for closing the bottom of the frusto-conic portion and an open top with an open front face portion for facilitating access to the food contained therein.

The present invention also contemplates a carton blank for forming a plurality of upwardly tapered frusto-conic portions of a food scoop and serving container. The carton blank comprises a flat sheet of stiff resilient cellulosic material, preferably a paper board of the type used for french fried potatoes in fast food outlets as will be well understood by persons of ordinary skill in the art.

In the present invention, the flat sheet of cellulosic material defines multiple side by side rows of side by side carton elements each of which has a top, a bottom and two opposite sides. An important aspect of this invention resides in the grain direction of the cellulosic material which is in a direction parallel to the rows. Accordingly, the grain direction in a finished product is circumferential about the upwardly titled frusto-conic portion.

The invention will now be described in connection with the accompanying drawings wherein like reference numerals have been used to indicate like parts.

DESCRIPTION OF THE DRAWINGS

Figure 1 is a top or plain view of a carton blank which illustrates a layout for a traditional fry cup with a grain direction in accordance with the prior art;

Figure 2 is a top or plain view of a carton blank in accordance with the present invention;

Figure 3 is a top or plain view of a single carton element for use in forming an upwardly extending frusto-conic portion of a food scoop and serving container in accordance with the present invention;

Figure 4 is a perspective view of a food scoop and serving container in accordance with the present invention;

Figure 5 is a side elevational view of the food scoop and serving container shown in Figure 4;

Figure 6 is a front elevational view of the food scoop and serving container shown in Figures 4 and 5;

Figure 7 is a top view of the food scoop and serving container shown in Figures 4-6; and

Figure 8 is a cross sectional view of the bottom structure of a food scoop and serving container in accordance with the present invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS OF THE INVENTION

As illustrated in Figure 1, a carton blank 2 for a conventional fry cup includes a single row 4 of identical container portions 6, 8, 10 and 12 disposed in a top to bottom configuration wherein the grain direction is parallel to the row i.e., runs from the top to the bottom of each of the container portions 6, 8, 10 and 12. In practice, the carton blank 2 would include multiple rows where the carton elements in adjacent rows are reversed in order to reduce scrap in adjacent container portions.

By contrast, Figure 2 illustrates a carton blank 20 in accordance with the present invention. As shown therein, the carton blank 20 includes multiple rows 21-26 each of which includes a plurality of identical carton elements or container portions, as for example, elements 27-30 in row 21 and elements 31-34 in row 22.

A key feature of the present invention resides in the material grain direction which is parallel with the rows of side by side carton elements so that the grain direction of a finished food scoop and serving container is circumferential. It has now been found that the food scoops and serving containers having a circumferential grain direction and a wall thickness of 0.012 inches have an increased stiffness as compared to an identical food scoop and serving

container with a 0.015 thickness and a grain direction from the top to the bottom. Further, the layout of the carton elements reduces the scrap area and results in a 30% paper board saving as the wall die cut. Then, by turning the carton elements by 90° results in significant savings in raw materials.

Figure 3 shows an individual carton element 27 as die cut from the carton blank. The element 27 includes an annular arch shaped concave base 40 which forms a generally flat base or bottom when the element 27 is formed into an upwardly tapered frusto-conic shape.

Each of the carton elements 27-34 are identical and referred to in Figure 3 as element 27. Those elements include an upper die cut scalloped or undulating top edge 42. This top edge 42 includes an arcuate depression 43 from which the remainder of the upper edge 42 proceeds in a pair of upwardly directed substantially symmetrical curves to the upper apexes 44, 44' of the top edge 42. The carton element 27 as well as the carton elements each include two side edges 46 and 48 which define a pair of downwardly converging die cut edges. A glue strip 50 is applied to one side of the carton element along one edge thereof.

When the aforementioned carton elements 27-34 are formed into a food scoop and serving container 60 the carton elements each form an upwardly tapered frusto-conic food scoop and serving container with the glue strip 50 along the edge 46 overlapping the edge 48 and adhesively bonded thereto to thereby form an upper portion of the food scoop and serving container 60. In this configuration, the upper most reaches of the top edge 42 from the portion of the container 60 which first engages the food i.e., a forwardly extending scoop. To provide increased stiffness at the forward portion of the scoop, the side edge 46 overlaps the side edge 48 with the glue strip 50 therebetween. This two ply glued joint runs from the center of an open portion i.e., from the center of the arcuate depression 43 to the bottom edge 44.

The carton elements 27-34 are shown in Figure 2 in rows 21-26 and are arranged in each row in a repeating side by side pattern. In this arrangement, the top of a first adjacent element 27 is adjacent to and abutting a bottom side edge of the second adjacent element. With this arrangement, the rows are staggered so that the arcuate depression 43 of one carton element is adjacent to an apex 44 or 44' of a carton element in an adjacent row. This staggered arrangement of rows is used to reduce scrap.

As illustrated in Figures 4-7 a two-piece food scoop and serving container 70 in accordance with the present invention includes an upwardly tapered frusto-conicle shaped upper or wall portion 72 and a closed bottom 74. The upwardly tapered frusto or conicle portion 72 includes the arcuate depression 43 which forms an open front portion of the container 70. The frusto-conicle portion 72 also includes appexes 44 and 44' which are joined together at the overlapping sides 46 and 48 to thereby provide a reinforced section along a bottom side of a scoop from a leading edge 46 of the scoop to the bottom 74. This leading edge 46 of the scoop also serves as a back of the serving container which provides ready access to the food container through the front portion thereof.

The bottom structure of the container 70 is shown more clearly in Figure 8 and may be of any conventional design for a base in cups or the like. The design of a base structure may be of a conventional design and can be manufactured using conventional techniques which will be well understood of persons of ordinary skill in the art. As shown in Figure 8, a base structure includes a bottom disc 80 having a downwardly extending skirt portion 82 which is joined with a U-shaped portion 84 at the bottom of the frusto-conicle portion or wall 72. With this construction, the container 70 rests on the bottom of the U-shaped wall with a disc 80 elevated slightly above the bottom of the U-shaped wall.

While the invention has been described in connection with the preferred embodiments, changes in modification may be made therein without departing from the scope of the appended claims.